DELIVERING THE GOODS: PUBLIC WORKS
FINANCING AND MANAGEMENT

Contractor Document

State Finance for Local Public Works:

Implications for Federal Policy

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by Analytical Services
Sophie M. Korczyk, Ph.D.

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INTRODUCTION

Any discussion of state and local government policies has to acknowledge the states' diversity. There are sovereign nations that differ less from each other politically, socially, and economically than wide-open Wyoming and urban, industrial New Jersey.

Despite this diversity, however, the states generally have to solve similar public policy problems under similar constraints. Whether the task is providing health care, managing corrections systems, or improving public works facilities and services, state programs must answer three basic questions:

- what to do;
- how to do it; and
- who is to benefit, or the distribution of aid among areas.

How these questions are answered determines both the effectiveness of state programs and their lessons for the design of federal policy.

The report prepared under the first part of this contract examined state initiatives for local public works finance in Washington state, New Jersey, Wyoming, and Massachusetts.[1] Three proposed programs would provide federal aid for multi-purpose state and local public works loans. This report evaluates state

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[1] Analytical Services, "State Finance for Local Public Works: Four Case Studies," A Report to the Office of Technology Assessment, Congress of the United States, December 19, 1988, Prepared under contract number J3 - 4860.0.

experience to determine what makes state initiatives work and how state lessons could be applied to a federal program.

The report concludes that state revolving loan funds are useful in a variety of state circumstances, and identifies features that can enhance their success. Some of these features can be built into a federal program, but others are uniquely available to states.

PROPOSALS FOR A FEDERAL REVOLVING LOAN PROGRAM

Three recent proposals would provide federal funds for public works loans:

- The National Public Works Corporation Act (H.R. 113), introduced by Rep. William Clinger (R-PA) in January, 1989, would establish a new federal agency to make public works loans to state and local governments.
- The National Infrastructure Development Act of 1989 (S. 220), introduced, by Sen. Daniel Moynihan (D-NY) in January, 1989, would establish a national infrastructure revolving fund administered by a new federal agency.
- An Infrastructure Trust Fund, proposed by the Senate Budget Committee's Private Sector Advisory panel on Infrastructure Financing, would provide federal funds to capitalize state infrastructure banks and RLFs.[2]

The National Public Works Corporation

H.R. 113 would establish a federal agency, the National Public Works Corporation (NPWC), to make state and local public works loans for new construction as well as repair and

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[2] Report of the Private Sector Advisory Panel on Infrastructure Financing to the Committee on the Budget, United States Senate, 100th Congress, 1st sess., S. Prt. 100-40, August 1987, p. VI-6.

rehabilitation of existing facilities. The Corporation would be capitalized with $2.5 billion in federal funds and an equal amount from participating states. State contributions and eligibility for federal funding would be based on population. The loans would be financed through bonds backed by the full faith and credit of the federal government and/or the Corporation's revenues or assets. The state and federal appropriations would provide a 10 percent reserve against the Corporation's loans.

If federal funds for the Corporation were appropriated at the full authorized level and the states made the maximum allowable contribution, the Corporation would have up to $50 billion to lend. A state with 10 percent of the national population could contribute up to $250 million and could receive up to $5 billion, or 20 times its contribution, in loans.

Project user fees would have to be adequate to cover operations, maintenance, and debt service. While the Corporation would review all loans and project proposals for technical soundness, all projects would first have to be approved by the Governor of the proposing state. The interest rates charged would generally reflect the Corporation's cost of funds.

National Infrastructure Corporation

S. 220 would create a federal revolving loan fund for infrastructure finance. The fund would be managed by the National Infrastructure Corporation, an agency created by the legislation and governed by a nine-member Board including federal

cabinet members, state and local elected officials, and public works specialists. The fund would be capitalized with interest income from the black lung disability, airport and airway, highway, and aquatic resources trust funds, totaling an estimated $2.3 billion per year.

Loans would be limited to 33 percent of project costs. The minimum size of eligible projects would be $100 million. The fund would lend at market, subsidized, or zero interest rates. Project user fees or other dedicated revenues would have to be adequate to support operations, maintenance, and debt service. The Corporation would develop project eligibility and selection criteria.

The Infrastructure Trust Fund

The Infrastructure Trust Fund would be financed by dedicated federal funds of $5 billion annually for five years, distributed to the states using a formula based on land area and population, among other factors. The Fund would give state and local governments most of the decision-making responsibility for infrastructure. Federal funds would be provided for 80 percent of state infrastructure banks or revolving loan funds, with the states providing the remainder. The states would be able to use the funds for RLFs, bond pools, credit enhancements, and guarantees.

The state funds would be designed to leverage additional funds. Much like the Washington fund, the state funds would require a local capital plan and local contribution and would

provide lower interest rates for projects with a higher local share.

ELIGIBLE FACILITIES

A revolving loan fund may be designed to aid all public facilities and projects, or only certain categories with special unmet needs. A program may also have secondary goals in addition to public works improvement.

The program's goals must be clear and achievable with the resources available. Officials of the Washington Public Works Trust Fund believe that clear, achievable goals contributed to the Fund's success and provide its major lesson for the design of a federal program.

STATE APPROACHES

The programs in the study states defined eligible facilities according to the financing source, infrastructure mode, type of activity, and sponsoring jurisdiction.

User Support

All four states required that the debt incurred to finance public works facilities be at least partly secured by user fees. This requirement excludes such facilities as government office buildings, and directs funds to projects that provide services to identifiable users.

Infrastructure Mode

The New Jersey and Washington programs finance only a limited number of infrastructure modes. The New Jersey Infrastructure Bank was to have separate lending "windows" for wastewater treatment, water supply, waste disposal, and transportation programs. Separate programs for all but water supply were enacted.

The Washington Public Works Trust Fund aids bridges, streets and roads, water systems, storm sewers, and sanitary sewers, but excludes projects to upgrade wastewater treatment from primary to secondary, separation of combined sanitary and storm sewer systems, water system projects designed solely to increase local fire flows; and routine maintenance and operation. The Fund's restrictions are designed to meet the state's most pressing needs and avoid substituting Fund loans for federal funds or routine local spending.

Narrow restrictions on the use of program funds can increase a program's impact by concentrating funds on the most urgent needs. Such restrictions may work well in a state program if public works needs and available resources are fairly uniform within the state.

Eligible Activities

Funds may be available only for repair and upgrading of existing facilities, or for new facilities as well. The program may also provide emergency aid, or may limit aid to projects included in the locality's long-term capital plan.

The Washington Fund loans are limited to the repair and upgrading of existing facilities, and may not generally be used for growth-related projects.[3] This restriction serves several functions. Since the state's estimated needs for repair and rehabilitation of existing facilities exceeded available resources, the Fund's designers wanted to concentrate Fund loans where they can make an impact. Excluding growth-related projects also keeps the Fund out of debates about where new growth should occur.[4] Finally, this restriction is intended to help shift the cost of financing new facilities to those who directly benefit from them.

Emergency assistance provided by the Washington Fund is limited to $1 million per funding cycle and $250,000 per applicant locality.[5] These limits partly reflect resource constraints; the Advisory Board and Fund officials feel that the program's resources would not be adequate to finance a major system failure. Rather, such a failure would require federal or other state funds. This limit also protects the Fund's underlying principles. Fund officials believe that expanding the emergency assistance available through the program would weaken

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[3] Some expansion is permitted to serve existing clients or service areas.

[4] Conversation with State Rep. Lorraine Hine, Majority Leader, State House of Representatives, Seattle, WA, November 28, 1988.

[5] State of Washington, Department of Community Development, Public Works Trust Fund 1989 Loan Priorities, November, 1988, p. 6.

its effectiveness in promoting local long-term planning and self-reliance.

The Wyoming Joint Powers Act (JPA) loan program, on the other hand, does not distinguish between new and existing facilities. The state's rapid growth when the program was established in 1974 meant that new facilities were an overwhelming need. Since the program was financed out of mineral revenues, new development automatically paid the cost of the facilities it needed.

Eligible Recipients

A program may finance both state and local projects, only local projects, or only projects of certain local government units. The framers of MassBank judged that both the state and localities needed augmented borrowing capacity for public works.[6] The New Jersey and Wyoming programs, in contrast, aid only local governments. The Washington program is even more focused, excluding school and port districts and private corporations that provide eligible services but are not special purpose districts. School and port districts were excluded from eligibility because they were believed to have adequate financing capacity.

FEDERAL OPTIONS

Like state programs, the three proposed federal programs would aid different types of facilities. S. 220 would aid only

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[6] Office of the Governor, MassBank: A Proposal to Rebuild and Expand the Commonwealth's Infrastructure, undated, p. 9.

larger projects, H.R. 113 would aid projects of all sizes and dimensions, and the Infrastructure Fund would appear to be limited largely to local projects.

Limiting eligibility to larger projects, as in S. 220, would aid multi-jurisdictional, regional, or national projects, such as the federal interstate highway system or proposed high-speed surface transportation systems. Projects with a regional or national interest are less likely to be undertaken without federal aid than state or local projects, since no one jurisdiction is generally able to finance the entire costs or capture the entire benefits of such projects. Restricting eligibility to larger projects would thus limit the substitution of federal funds for state and local spending, increasing the program's impact.

Aiding only local projects, on the other hand, would recognize that much infrastructure is local in character. A program aiding local facilities could be subject to more fiscal substitution than one aiding regional or national projects, diluting its impact. Nevertheless, even if fiscal substitution were high, federal aid could affect the timing of projects. This could be an important public benefit, since postponing public works improvements can increase their cost and cause public hardship.

The three federal proposals would also aid different infrastructure modes. H.R. 113 would aid any projects supportable by user fees. S. 220 would also aid a wide range of

projects. The Infrastructure Fund would limit aid to highways, streets, roads, water and wastewater treatment facilities, and solid waste disposal projects.

As in state programs, concentrating aid on a limited number of infrastructure modes can bring about visible results sooner. If public works needs are similar among states, such limits can target aid to the most severe needs, minimizing the substitution of program funds for other spending.

Public works conditions are likely to differ more among states than within individual states, however. Narrow restrictions on allowable uses of funds can therefore cause some localities to construct facilities inappropriate to their needs.[7] This is more likely the deeper the subsidy and the greater the difference in needs among areas. For example, some federal public works programs may have encouraged capital construction when improved operations and maintenance would have served local needs as well or better.[8] Other localities may be unable to meet critical needs that do not fit within narrow program parameters. Many states could usefully undertake more wastewater treatment and highway projects, for example, but cannot productively use all the federal mass transit grants to which they are entitled.[9]

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[7] Washington State Rep. Lorraine Hine calls this "making your problems fit the federal mold."

[8] Fragile Foundations, p. 108.

[9] Congressional Budget Office, New Directions for Public Works (Washington, D.C., September 1988), p. 114.

SECONDARY GOALS

State public works loan programs are often designed to achieve multiple goals. A program's secondary goals can enhance or limit its impact on public works improvement.

The Washington Fund is designed to discourage "... the kind of public management [that] postpones local spending on repair and replacement in hopes of getting Federal or state grants" and to "... reinforce local planning efforts."[10] Accordingly, the program requires that localities make adequate use of their own revenue sources and plan for meeting their public works needs.

Improved local planning capacity can improve public works facilities and management in the long run. In the short run, however, this emphasis can direct funds away from the neediest areas. Areas meeting the Washington program's distress criteria, which include public works condition, receive an average of more than one-third of the program's loans.[11] Basing aid on need alone would probably increase this proportion, however, since applications from distressed localities are no more likely to be approved than those from the rest of the state.

The Massachusetts and New Jersey programs were designed not only to improve public works, but also to increase state and local use of revenue bonds and relieve pressure on state and

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10 State of Washington, Department of Community Development, Financing Public Works: Strategies for Increasing Local Investment, December, 1984, p.12.

11 Analytical Services, Table 3.

local general obligation debt capacity. Increased use of revenue bonds requires greater local self-reliance, since investors must be satisfied that the bonds can be repaid out of project revenues. New Jersey borrowers, for example, must sign strict user fee covenants to ensure the marketability of loan-backed revenue bonds issued by the Wastewater Treatment Trust.[12] Greater self-reliance is not necessarily consistent with aiding distressed areas, however, since such areas may not be able to afford increased user fees.

Multiple goals can complicate a program, but a simple program can be used to pursue secondary goals and respond to diverse local circumstances. The Washington program appears to be able to promote both public works improvement and increased local financing and planning capacity.

ELEMENTS OF A STATE PROGRAM

The program's structure will influence both its likelihood of adoption and its success in achieving its goals. Structural elements that were important in the four programs studied included: design; scale; organization, including the role of the state legislature; and finance.

DESIGN

Three overall design features affect a program's success:

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12 Analytical Services, p. 14.

simplicity of operation, whether the program is new or replaces an existing grant or loan program, and program stability.

Simplicity

Simple programs are more likely than complex programs to be adopted and to dispense aid in accordance with program goals. Complex programs are more likely to be modified in the course of legislative debate and may have less predictable resource allocation effects.

Simplicity is the major operational principle of the Wyoming and Washington programs. The Washington Fund applicants must complete an 18-page application by mid-July of the year before they wish to receive funding. Applicants are discouraged from submitting detailed supporting materials with this application. Fund officials submit project priorities to the legislature by November 1. Successful applicants may start receiving funds the following April, and may forfeit funds if they are not able to execute a loan agreement within 90 days of the loan offer. Funds spent by the locality before the project loan agreement is executed are not eligible for reimbursement, but may be counted toward the locality's share.

The New Jersey wastewater treatment program is more complex. Localities must meet three application deadlines; nearly two-thirds of those initiating the application process do not complete it.[13] This is costly for unsuccessful applicants,

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13 Analytical Services, p. 22.

though some applicants who do not complete one funding cycle may go to the head of the queue in the next one.

Some of the New Jersey program's complexity results from the use of revenue bonds to finance half of the program's loans. To ensure adequate disclosure of the locality's finances and compliance with securities laws, the program requires applicants to hire a bond counsel for the application process. The program's complexity and other requirements mean that some funding goes to localities that are relatively low on the EPA priority list.[14] Bypassing high-need areas dilutes the program's effect in alleviating the state's wastewater treatment construction needs.

The application process is long because it is complex, but its length itself adds complications. Some New Jersey localities are under judicial consent orders to improve their wastewater treatment systems. Many must thus begin projects before all their funding is in place. Short-term securities issued to finance pre-award expenditures have been ruled ineligible for refinancing with EPA program funds, increasing local project costs.[15]

The MassBank proposal was also complicated. It called for new local powers to borrow and create special-purpose districts,

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14 Analytical Services, p. 25.

15 Conversation with Janice Brogle, New Jersey Wastewater Treatment Trust, Trenton, NJ, December 5, 1988.

and new state business taxes. The proposal's complexity contributed to its defeat.[16]

New Programs for Old

A new program is easier to enact than one that replaces or restructures existing assistance. A new program creates only winners, while a replacement program can redistribute aid, creating both winners and losers. New Jersey localities most likely to receive EPA wastewater treatment grants opposed turning the grants into loans until it became a federal requirement.[17]

A loan program that replaces grants can arouse opposition by shifting financing responsibility from the (former) donor government to the (new) borrower government. Many New Jersey localities opposed the New Jersey Infrastructure Bank (NJIB) because they were reluctant to take over previously state or federal spending responsibilities.[18]

Changing responsibilities do not appear to cause problems when a new loan program is enacted, even though any loan program increases the borrower's share of state and local spending responsibility.[19] For example, MassBank would have given new

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[16] Analytical Services, p. 64.

[17] Analytical Services, p. 18.

[18] Richard J. T. Moore and Nancy G. Beer, Lessons of New Jersey's Proposed Infrastructure Bank (Princeton, NJ: Princeton University, 1984), p. 36.

[19] To illustrate, suppose that a state government and its localities each initially finance 50 percent of combined state and local spending. If total state and local spending increases by 5 percent -- all financed by localities -- the state share drops to 47.6 percent, while the local share increases to 52.3

responsibilities to local governments for issuing revenue-backed bonds and creating special districts to finance public works. Given that the Massachusetts state government finances a larger share of combined state-local spending than in most states, this shift could have been expected to arouse local opposition. Instead, localities supported the initiative.[20] The Washington and Wyoming programs also have had strong local support from their inception.

Program Continuity

A major concern in financing public works is providing a steacy and predictable source of funds. Since public works deteriorate gradually, needed maintenance, repair, and rehabilitation are often postponed in favor of other, more visible, needs. As a result, service quality can decline and more serious and costly repairs may become necessary.

The RLF can provide more stable financing than other financing approaches because it can be designed to be self-renewing. State officials emphasize that an RLF should also be managed in a stable way. The Washington program has been changed since its adoption to reflect program experience and changing needs. These changes have been only incremental, however, and Fund officials are committed to retaining the program's basic goals and structure. For example, with its 1989 funding cycle,

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percent.

[20] Conversations with Ron Lanoue, Massachusetts State Budget Bureau, and John Hanson, Executive Office of Administration and Finance, Boston, MA, December 12, 1988.

the Fund added planning loans to increase participation among smaller localities and emergency loans.[21] Massachusetts officials also emphasized the state's commitment to maintaining stable levels of local aid even in the face of state budget problems.

SCALE

A state aid program should be proportional to the problem it addresses. It should be large enough to make an impact but small enough to be manageable and not unduly upset other budget priorities.

As it was originally proposed, the NJIB was to have about $1 billion in capital. This total was large compared with the state's $11.0 billion in total outstanding general obligation and revenue debt combined and estimated pay-as-you-go capital spending of $51 million in 1984.[22] Partly because of its size, the proposal was enacted program by program rather than all at once.

MassBank, on the other hand, was defeated in part because it was small relative to the state's available resources. The Bank was intended to double the state's capital spending over the

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21 State of Washington, Department of Community Development, Public Works Trust Fund, "1989 Capital Improvement Planning Support Loan Application," p. i.

22 Richard J. T. Moore and Nancy G. Beer, Lessons of New Jersey's Proposed Infrastructure Bank (Princeton, NJ: Princeton University, 1984), pp. 8-11.

following three years.[23] It called for a tax increase and complicated tax code changes at a time when revenues were already increasing rapidly due to the state's economic growth. MassBank thus seemed require a great deal of effort for relatively little return.

The Washington Fund's framers tried explicitly to balance needs and affordability in deciding the program's scale of operation.[24] The Fund assisted in financing $228.2 million in projects in its first four years, or over 11 percent of the state's estimated unfunded local public works needs in 1983.[25]

PROGRAM ORGANIZATION AND THE ROLE OF THE LEGISLATURE

Perhaps the single most important factor in the successful enactment and operation of an RLF is the role of the state legislature in design and oversight. An RLF program can change-- or be perceived to change -- the state's balance of political power because assuring stable funding for the program can require segregating the program from other budget priorities. This separation can reduce legislative discretion and oversight and increase executive branch discretion.

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23 Office of the Governor, p. 8. This goal was achieved in MassBank's absence, but somewhat more slowly (see Analytical Services, Table 6).

24 Financing Public Works, p. 11.

25 Calculation based on Analytical Services, Table 3. Nearly 44 percent of this total was accounted for by Fund loans. Total unfunded needs from: State of Washington, Planning and Community Affairs Agency, The Washington State Public Works Report, December 1983, p. 24 and ff.

The MassBank and NJIB proposals, both executive branch initiatives, were perceived by the respective state legislatures to provide inadequate accountability. MassBank was to be structured as an independent authority to insulate its revenues from the state's budget and appropriations process. The more reliable income stream thus created would make it possible for the state to issue revenue bonds for public works that would be acceptable to investors.[26] Even though the legislature was to continue to authorize all capital outlays, the proposed authority's independence led to a perception that it undermined the legislature's authority, contributing to its defeat.[27]

As originally proposed, the NJIB was also to be an independent authority, with its actions subject to the Governor's veto power. An independent authority could issue revenue-backed bonds, which New Jersey could not. The NJIB was to have more independence than MassBank would have had; its decisions would not have been subject to legislative approval. This independence aroused fears that the state's constitutional and governance structure would be undermined.[28]

Accordingly, the NJIB's proposed organization was modified to reduce the power its independence and size would have given

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26 Massachusetts Executive Office of Administration and Finance, "Answers to Questions About MassBank," March 25, 1985, (duplicated), pp. 25 and 27.

27 Conversation with John Hanson, Executive Office of Administration and Finance, Boston, MA, December 12, 1988.

28 Analytical Services, p. 16.

it. Only the Wastewater Treatment Trust, which issues revenue bonds, is constituted as an independent authority. The Wastewater Treatment Fund, which provides half of each wastewater treatment loan, and the solid waste management program are administered by the state Department of Environmental Protection.

The Washington Fund was a legislative initiative, and the state legislature was involved in every stage of the Fund's development, from the original legislation ordering the study of state needs, to laws specifying targeting criteria, financing sources, and the composition of the Fund's Advisory Board. The legislature also reviews each year's designated loan recipients. Legislative oversight is less stringent in the Wyoming program, but the Governor is among the elected officials who must approve every loan.

The role of finance in a program's success is discussed fully in the next section, but it should be noted here that a program's organization is partly dictated by its financial structure. Massachusetts and New Jersey needed independent authorities to be able to issue revenue-backed bonds. The Washington Fund, on the other hand, is financed with dedicated current revenues and thus could be operated out of an existing executive agency.

While the legislature's participation is critical to a program's success, the legislative role can be balanced with executive agency discretion. In Washington, both Fund officials and legislators believe that the rule permitting the legislature

to delete but not add projects safeguards the program's integrity, or underlying principles. In the New Jersey solid waste program, in contrast, the imbalance of between executive and legislative roles has slowed the program's progress.

PROGRAM FINANCE

An RLF generally functions as both a lender and a means for redistributing income among localities. As a lender, it demands that borrowers be credit-worthy and projects be economically viable. As a local aid program, it balances strict lending considerations with local needs in selecting projects.

Striking this balance depends in part on how the program is financed. Implementing an RLF requires several financial choices:

- selecting the funding source;
- determining the role of user fees; and
- setting interest rates to be charged borrowers.

Program Funding

An RLF must have an initial source of funds to lend. These funds can come from current revenues, general obligation bonds, or revenue bonds.

Current Revenues or Debt

The choice between current revenues and bond finance can influence a program's stability, lending capacity, costs, and state budget impact.

Program stability. A one-time bond issue to capitalize the fund can provide a more stable source of funding than current revenues. Financing out of current revenues may require the program to compete for funds annually, increasing the likelihood of fluctuations, while a bond issue requires only one decision. The framers of the Washington program considered financing it with a one-time debt issue.[29]

The Massbank proposal would have required annual borrowing, as do the New Jersey programs. If a fund is to be financed by recurrent borrowing, debt finance can be less stable than current revenues, since each debt issue is subject to legislative or voter approval as well as credit market fluctuations.

The Wyoming and Washington programs are financed with earmarked current revenues. The Wyoming program is financed through the mineral trust fund, using state severance taxes. The Washington Fund uses dedicated revenues from utility and sales tax surcharges on local water, sewer, and garbage collection services, and a portion of the real estate conveyance tax.

Earmarking or dedicating certain taxes for public works improvements can overcome the potential instability of pay-as-you-go finance. Earmarking certain revenues for a particular program can make a tax increase more palatable by giving it a clear purpose.[30] Once a legislature enacts an earmarking

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29 Financing Public Works, p. 7.

30 The role of earmarking in eliciting support for tax increases is discussed in Charles F. Adams, Jr., Astrid E. Merget, and Frederick D. Stocker, "Earmarking Revenues for Public

provision, it generally does not lightly undo it; such provisions can develop constituencies that resist change. Earmarking can also increase program funding if the dedicated revenue source grows. Growth in dedicated revenues has more than doubled funding for the Washington program since it was enacted, for example.

Earmarking may not always provide stable funding, however. If the legislature must appropriate earmarked funds, public works spending may still be deferred due to other priorities or political deadlocks.[31] On the other hand, earmarking can sometimes be too effective, removing revenues from current control and creating uncontrollable budget items.[32]

Lending capacity. A program financed through current revenues may lend less in its early years than if it were financed by debt, since available loans are limited by the size of the revenue source. The Washington Fund was projected to be able to lend more than twice as much in its first five years

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Works Projects," A Report to the National Council on Public Works Improvement, July, 1987.

[31] For a discussion of the use of earmarking in federal and state finance of public works, see National Council on Public Works Improvement, Fragile Foundations: A Report on America's Public Works, Final Report to the President and Congress, February 1988, pp. 59-61 and 65-67.

[32] Adams, et al., p. 16.

using bonds as it would using current revenues, given equal appropriations.[33]

After the tenth year, however, loan repayments increased funds available using the pay-as-you-go approach, while the cost of issuing bonds reduced the funds available using debt finance. Over the longer term, local lending in the Washington program would have been 27 percent lower under bond finance than under pay-as-you-go finance.

Project costs and timing. Debt finance can allow projects to go forward sooner than pay-as-you-go finance, since the state's operating budget only has to provide for debt service. A project financed out of current revenues, on the other hand, appears in the operating budget as soon as outlays are made. Delaying a project can cause local hardship and increase project costs due to inflation.

Inflation also increases taxpayers' incomes and state and local tax revenues, however. Thus, the project's relative costs could remain unchanged over time. Project delays can also sometimes reduce costs. A rapid increase in spending can strain available construction resources, increasing local prices and

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[33] State of Washington, Department of Community Development, Financing Public Works: Strategies for Increasing Local Investment, December, 1984, p. 7. This calculation was based on the assumption that the Fund would have $5 million annually to use either for debt service or directly for lending.

materials, and diverting work out of the locality or the state.[34] Deferring a project can reduce such inflationary pressures.

State budget policy. Many state and local governments are prohibited by constitution or statute from incurring operating deficits. Bond finance can often help alleviate operating budget problems. For example, recent budget difficulties in Massachusetts have caused the state to borrow for some projects that were to have been financed with current revenues.[35] Debt service on projects financed with revenue bonds may not appear in the state budget at all if the bonds are issued by independent authorities or financing districts.

General Obligation Bonds or Revenue Bonds

General obligation bonds are backed by the state's full faith and credit, or general taxing power. Revenue bonds are backed by a specific income stream, usually generated by the project being financed.

Current revenues and general obligation bonds generally allow more flexibility in setting RLF loan terms than revenue bonds. Investors judge general obligation bonds on the state's credit rating, while revenue bonds are judged on the income stream and financial soundness of the projects being financed.

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34 Statement of Herman B. Leonard before the Senate Energy and Environment Committee, New Jersey Senate, September 4, 1985, p. 12.

35 Conversation with Ron Lanoue, Capital Manager, Massachusetts State Budget Bureau, Boston, MA, December 12, 1988.

Because financing with current revenues or general obligation bonds does not depend on the project's income, programs using these methods can offer concessional financing terms that are not possible in revenue-bond financed programs. The New Jersey program, for example, uses general obligation bonds to finance the zero-interest component of wastewater treatment loans, and revenue bonds to finance the market-rate component.[36] The New Jersey program also imposes strict user-fee covenants making aided projects self-supporting.

The Washington and Wyoming programs, which are financed with current revenues, allow applicant localities to supplement user fees with state or federal grants and other revenue sources. The Washington program offers interest rates lower than its usual 3 percent for projects with more than the minimum required 10 percent local participation.

A program financed through revenue bonds will usually be more complex than one financed through current revenues or general obligation bonds. Because investors need adequate evidence that the underlying project and borrowers are creditworthy, applicants can be required to provide extensive information and may experience financing delays related to bond market considerations.

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[36] In 1989 and subsequent years, the zero-interest component of the state's wastewater treatment loans will be financed by the state's allocation of EPA wastewater treatment construction grants.

User Fees

User fees are payments for services made by households, businesses, and other consumers to a governmental body or other public works provider. RLFs generally finance projects that are or can be supported by users, and implementing an RLF can often require increased user fees.[37]

User fees can promote more rational use of existing facilities and more appropriate construction of new facilities. Localities are less likely to undertake a project that is not economically justified if they have to explain it costs to the rate-paying public.

Implementing or increasing user fees often causes controversy, because such changes shift financial burdens between levels of government and income groups.[38] On the other hand, keeping user fees low to protect low-income households also subsidizes users who can pay the true cost of what they use and increases costs for all users by reducing incentives for more efficient use.

User fees are generally distinguished from taxes, but the difference is not always clear. One difference is that taxes are generally based on some measure of the taxpayer's ability to pay, while user fees are based on utilization of a commodity or

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[37] An exception is local bridge, street, and road projects, where user fees are generally not feasible.

[38] For example, in the debate over the New Jersey program, the proposed increases in user fees were characterized as a shift in financing responsibility from "the government" to "the people." Analytical Services, p. 19.

service. For example, water use can be metered, and users can be charged per gallon used.

Both taxes and user fees can be based on similar measures of ability to pay, however. Like user fees, sales taxes also determine liability based on the consumer's spending or living standard.

Another difference is that taxes can be designed to be progressive, while user fees often are not. Income taxes generally provide exemptions and lower rates that reduce income tax liability for lower-income taxpayers. While property tax rates do not differentiate between high and low earners, homestead exemptions can provide progressivity. Sales tax exemptions for food, medicine, and other necessities are also designed to introduce progressivity. The deductibility of state and local taxes can further increase progressivity, while user fees are not tax deductible.

User fees can be designed to be progressive as well. The Medicare Catastrophic Protection Act of 1988, which provides insurance coverage for retirees against extraordinary medical expenses, is financed with a user fee that varies according to retirees' income tax liability. While this premium resembles an income tax surcharge, it is considered a user fee because it is levied on those who benefit from the coverage provided.

User fees, like taxes, can thus be designed to reflect a number of judgments about the appropriate distribution of costs

among income groups. Adverse distributional impacts of user fees could be alleviated in a number of ways:

- A share of public works and/or utility user fees could be made deductible on federal or state income tax returns. This would make user fees more progressive while still retaining the resource allocation signals that properly-set user fees can provide.
- A base level of services could be provided at a lower rate to protect lower-income users, much like property tax homestead exemptions reduce effective tax rates.
- The Wyoming program compromises between affordability for users and the need for higher fees by providing interim aid to ease localities' transition to higher fees.[39]
- The Washington program takes individual community circumstances into account in determining the appropriate role of user fees in providing loan security, requiring less reliance on user fees in less affluent communities.

Interest Rates

Interest paid by RLF borrowers is a key element of the revolving feature. Interest payments increase the program's loanable funds over time and compensate for the erosion in the real value of the original capital pool caused by inflation. The role of interest payments in augmenting available funds suggests that interest rates should be at or near market levels. However, participation also has to be attractive for localities, arguing for subsidized interest rates.

RLFs work with a wide range of interest arrangements. The Washington and New Jersey programs provide subsidized interest

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39 Conversation with Mike Hackett, Wyoming Department of Environmental Quality, Cheyenne, WY, November 30, 1988.

rates. Washington borrowers pay no more than 3 percent interest, and may pay no interest depending on their contribution to project costs. The New Jersey program charges interest at half of market rates. The Wyoming program, on the other hand, charges borrowers between 6 and 12 percent interest, depending on market fluctuations. Since most Wyoming localities are small, they would be unlikely to be able to borrow in investment markets at such rates.

Interest rate subsidies can further a program's distributional goals by making program loans more affordable to localities. Such subsidies also cause program costs to be understated, however. The federal government, like many states, does not explicitly appropriate or account for the subsidy interent in below-market rate loans. Interest payments, on the other hand, appear as budget receipts. Interest rate subsidies can thus reduce the apparent cost of a program while leaving its real resource cost unchanged.

ELEMENTS OF A FEDERAL PROGRAM

Federal and state programs have to solve similar problems in determining structure and operation, but under different constraints.

SCALE

A program's affordability will depend in part on its goals. The deeper the subsidy a program offers, the greater its

budgetary costs. On the other hand, an unsubsidized program, or one with a shallower subsidy, could cost less but could also do less to change the relative cost of capital projects and state and local spending priorities.

The $50 billion in program loans contemplated under H.R. 113 would be about twice as much as all state governments spent from their own revenue sources for infrastructure in 1985 and about as much as all local governments spent in that year.[40] The Infrastructure Fund would provide about half as much aid as H.R. 113 over a five-year period.[41] S. 220, in turn, would provide about half as much aid annually as the Infrastructure Fund, but would provide it on a permanent basis.

What constitutes an affordable increase in spending depends in part on the time period over which it is to be realized. Massachusetts was able to double its capital spending over a five-year period without apparent detrimental effects to either price levels or the quality of projects, in part because the state had previously increased the capacity of its public works planning agencies.[42] Individual states can also draw on out-of-state contractors and supplies to meet resource needs, mitigating possible inflationary pressures.

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40 Fragile Foundations, p. 45.

41 The $25 billion proposed federal appropriations would be augmented over time by interest paid by borrowers.

42 Analytical Services, p. 66.

Not all state and local governments may have adequate capacity to manage a rapid increase in construction spending, however. In addition, if all states were to increase their spending over a relatively short period, resource bottlenecks and price increases could result. These factors could dissipate the increased program funds on increased costs.

ORGANIZATION AND PROGRAM FINANCE

Both H.R. 113 and S. 220 would create new agencies. Like state authorities in the New Jersey and Massachusetts proposals, independent federal agencies can expand the available range of financing techniques and transcend federal budget constraints. This would be a major purpose of the National Public Works Corporation. H.R. 113 would provide twice as much aid as the Infrastructure Fund with only one-fifth the appropriations by using federal appropriations as a reserve against federally issued bonds. The Infrastructure Fund would permit the states to use a wide variety of financing techniques to leverage additional funds, but would not use such leverage at the federal level.

Not all borrowing by federal agencies is included in the unified budget deficit. However, federal borrowing, whether directly or through an independent agency, generally has the same economic effects. It can drive up federal borrowing costs and crowd out private investment.

Off-budget financing techniques can also limit budgetary control without limiting federal costs. Debt issued by federally sponsored agencies can impose obligations on the federal government even if it is guaranteed or backed by reserves. If NPWC loan defaults were to exceed the reserves set aside to meet these loans, for example, federal appropriations could be required to secure investors' interests.[43]

THE STATE AND LOCAL ROLE

Federal aid can be used either to enhance state and local planning and decision-making capacity, or to impose federal standards. The three proposals envision different roles for state and local governments in funding decisions. H.R. 113 and S. 220 would make funding decisions at the federal level. H.R. 113 would require that projects be approved by the Governor of the state to be eligible for aid. The Infrastructure Fund would allow the states to make program decisions.

State programs appear to work best when the legislature plays a major role in program design and oversight, approving both targeting criteria and projects selected for funding. The legislature is where political consensus behind a program is built and the needs of various localities are balanced.

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[43] For a discussion of the public policy issues involved in federal credit programs, see Executive Office of the President, Budget of the United States Government 1989, Special Analysis F, sections C and D.

Unlike the state legislatures, Congress generally approves only larger projects on an individual basis. Experience in the four states studied suggests that when project selection is entirely the task of state executive agencies, the political stamp of approval is missing.

H.R. 113 would not provide a role for state legislatures in allocating program assistance, even though the states would provide half of the appropriations necessary to implement the program. S. 220 does not specify criteria for eligible areas or project selection. In the Infrastructure Fund, the state legislatures would set program parameters.

H.R. 113 and S. 220 could be modified to enhance the role of state legislatures by providing that states set targeting and eligibility criteria -- perhaps within federal guidelines -- and review projects selected for funding by the state executive agency or agencies administering the program. The State Revolving Funds established under the federal Clean Water Act provide the states some project discretion within federal guidelines.

A strong state decision-making role can make a federal program more effective. A federal program that was flexible to take account of all the differences among states could be impossibly complex. Given enough discretion, however, state and local governments can select the goals and the financing techniques most appropriate to their needs and resources.

Expanding the state role could also help make a program into a partnership among governments, rather than a federal dictum.

WHO IS TO BENEFIT

The final major decision in designing an RLF is selecting its beneficiaries. Eligibility criteria specify the localities eligible to apply for aid, while targeting criteria serve to discriminate among applicants.

STATE APPROACHES

Eligibility and targeting criteria were a critical policy element of the programs studied. The criteria were designed not only to improve public works facilities and services but also to aid distressed areas, encourage certain local management practices, and influence patterns of state economic development.

In the Wyoming program, aid was initially limited to localities adversely affected by energy development, but was later made available to all local governments. Targeting does not appear to have been a major issue in the program's development and operation, possibly because the program has never approached its statutory lending limit.

In New Jersey and Washington, on the other hand, limits on aid available relative to need prompted vigorous debate on targeting criteria. The original New Jersey proposal did not contain targeting criteria or legislative oversight provisions, which delayed its adoption. The wastewater treatment program now

distributes aid to economically self-supporting projects ranked according to the EPA priority list for the state.

Resource constraints also influenced targeting in the Washington program. Aid is targeted to communities that both meet the law's distress criteria and use their own resources to meet their needs. Since the projected scale of the program was not expected to meet all the state's needs as identified in the 1983 infrastructure inventory, it was designed to supplement, rather than replace local effort. This maximizes the impact of available state aid by encouraging local effort and reducing fiscal substitution.

While targeting criteria are politically important, they may have less impact in determining aid distribution in a loan program than in a grant program. So long as application is voluntary, many eligible areas may not participate in the program. This has limited the New Jersey program's impact on the state's wastewater treatment needs.

TARGETING IN A FEDERAL PROGRAM

Proposed federal programs would use different criteria for allocating aid. H.R. 113 would allocate aid among states based on state population and fiscal capacity. States would be required to contribute to the program to receive aid, and contributions would be based on the state's population relative to that of the nation. Within each state, the Governor would be required to ensure that funds are distributed among urban and

rural areas roughly in proportion to their share of the state's population. This criterion would ensure that funds were distributed broadly within the state, but the distribution would not necessarily reflect either patterns of need or the recipient locality's efforts to meet its needs.

The Infrastructure Fund proposal suggests population and the state's land area as two possible eligibility criteria for distributing aid among the states. Population density is likely to be a better measure of public works needs and costs than population alone. The proposal does not specify targeting criteria, however. Under S. 220, the National Infrastructure Corporation would set eligibility and project selection criteria.

To concentrate funds on the most pressing state and local needs, a federal program could target aid based on the locality's economic distress and public works needs or conditions. The state's or locality's efforts to meet its own needs, such as spending or tax effort, could also be considered in project selection decisions.

As an alternative to federally imposed standards, the states could be charged with setting eligibility and targeting criteria.needs. Washington officials suggested that a federal program could require that states have their own public works aid program in place to be eligible for federal aid. This would encourage the states to evaluate their own needs and the best means of meeting them.

SUMMARY AND CONCLUSIONS

States implement public works revolving loan funds for four basic reasons:

- to increase public works spending;
- to supplement local financing capacity, particularly for small governments without credit market access;
- to provide a stable source of funds for public works projects; and
- to increase local responsibility for public works.

Proposals for federally financed public works revolving loan funds are motivated by some of the same considerations that gave rise to state programs. Public works spending is widely acknowledged to be inadequate and funding is unstable. Given the extent of federal budget problems and the local character of much of the nation's infrastructure, state and local governments will have to bear a large share of new spending. There remains a strong federal interest in the quality of state and local facilities, however, so the federal government will have to contribute a share as well.

A federal infrastructure program providing direct loans to state and local governments would be a significant change in public policy. Federal aid to state and local governments consists largely of grants; new infrastructure loans to state and

local governments (net of repayments) were about $200 million in 1986 and negative in 1989.[44]

State programs are thus the best available design models for a federal program. Several design features of state programs could be adapted at the federal level.

INGREDIENTS OF A SUCCESSFUL STATE PROGRAM

Experience in the four state programs studied suggests four major elements of a successful state RLF:

- the program's goals and scale of operation must be both manageable and adequate to deal with the problem;
- its financial and operating structure must be understandable and reliable;
- its eligibility and targeting criteria must be accepted as fair; and
- the state legislature must have an adequate role on program design and oversight.

These elements are not equal in importance. Unless a proposed program provides for an adequate legislative role, it will either not be enacted, or it will be modified in the legislative process. With adequate legislative participation, on the other hand, the remaining elements can be developed.

LESSONS FROM STATE EXPERIENCE

Experience in the four study states shows that multi-purpose state revolving loan funds are useful in a wide range of state

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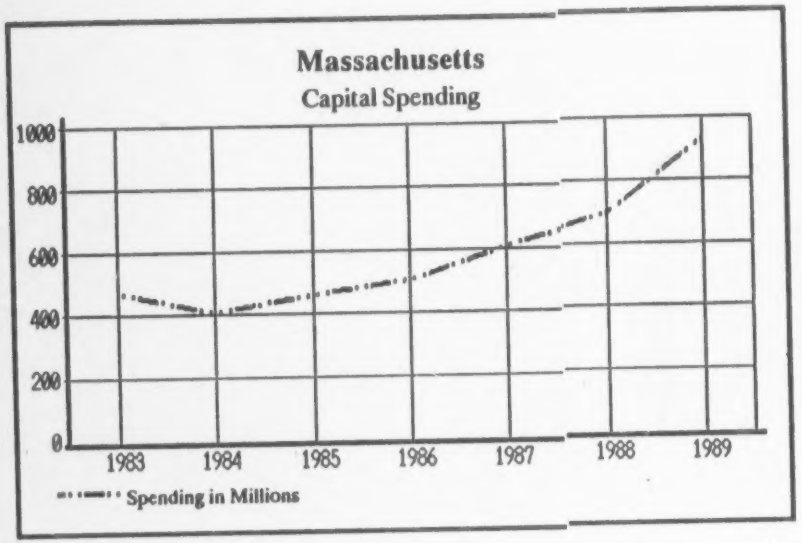
[44] Executive Office of the President, Budget of the United States Government 1989, Special Analysis H, Tables H-11 and H-12.

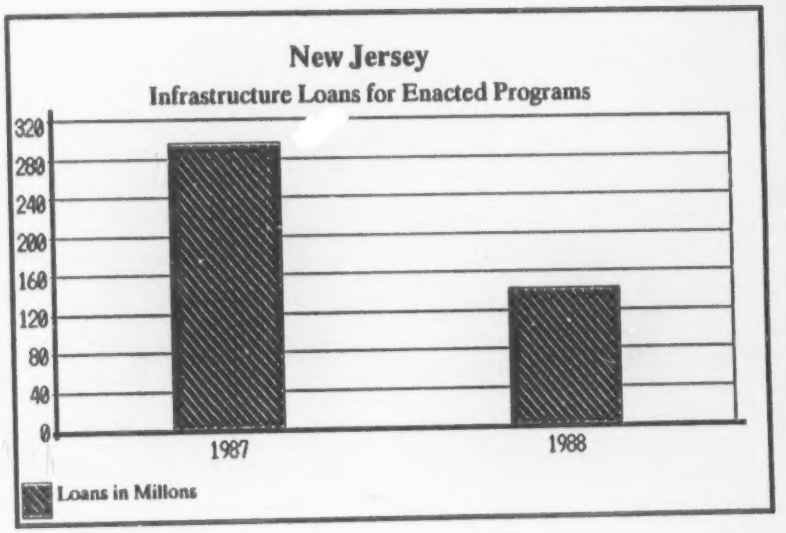
circumstances. Their usefulness stems in part from the fact that the basic concept can be adapted extensively to state and local circumstances. RLFs can be financed with current revenues or debt, targeted widely or narrowly, subsidized or not, and available for a broad or a narrow range of facilities and projects.

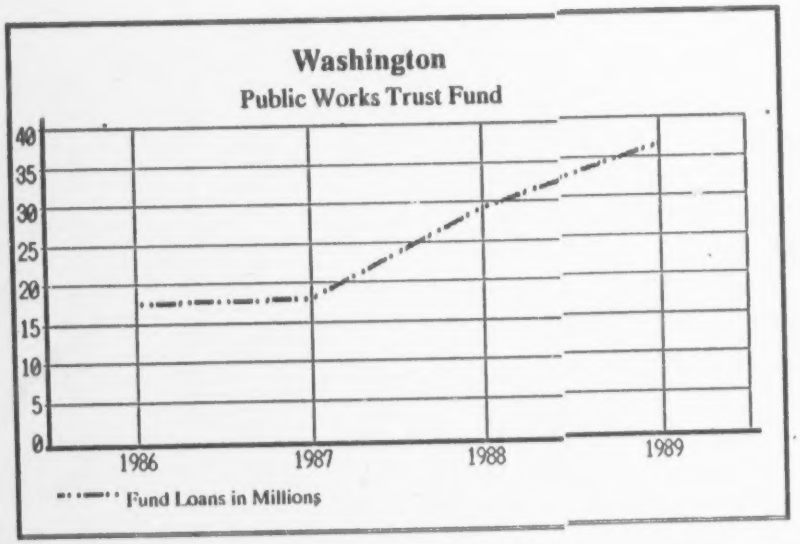
While the concept is widely adaptable, certain design features and political factors enhance a program's potential for success. A program that achieves broad legislative and local government consensus is more likely to be adopted and operate successfully than one introduced in a "top-down" fashion by the state government. A program can be designed to achieve multiple goals, but such goals should be consistent. For example, meeting public works needs is consistent with, and ultimately enhanced by, improving local planning and management capacity. On the other hand, meeting urgent public works needs may not be consistent with making facilities financially self sufficient. A program should be simple, manageable, affordable, and adaptable to local needs.

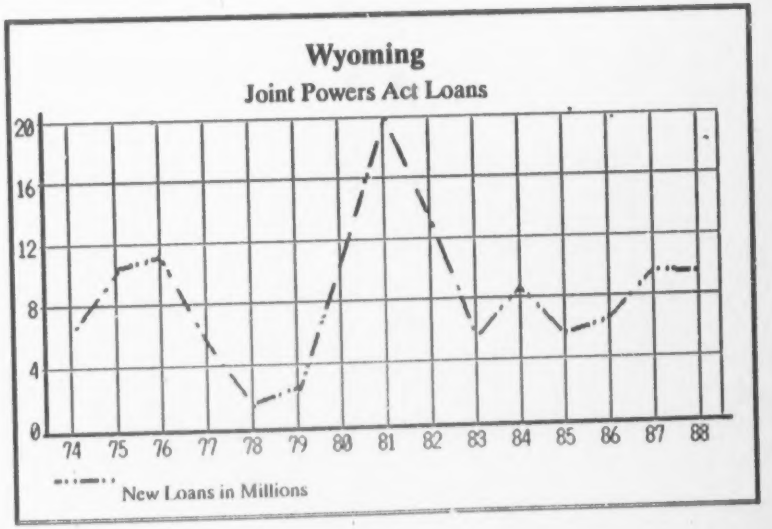
State experience also suggests that a new program may not be the only way to improve public works facilities and services. While the Washington, New Jersey, and Wyoming programs all led to increased state spending on public works, they have displayed different activity patterns. New lending in the Washington program has increased steadily since its inception, due to increases in the dedicated revenue source (Figure 1). New loans

Figure 1. Trends in State Aid for Local Public Works









in the Wyoming program have varied considerably from year to year. The New Jersey program is only entering its second year, making generalizations difficult, but lending in the second year will be lower than in the first year, though higher than proposed in the original Infrastructure Bank. In contrast with these states, Massachusetts, which rejected innovative financing techniques for public works, has increased capital spending dramatically. These patterns suggest that the decision to adopt an RLF is secondary to the decision to increase public works spending.

APPLICATIONS TO FEDERAL POLICY

State experience suggests that a federal program should be flexible, provide adequate accountability, and be affordable.

Flexibility

A federal program should finance a wide range of facilities and projects, including most infrastructure modes and both new construction and repair and rehabilitation of existing facilities. Public works needs may be fairly similar within states, and even within regions. Across the country, however, needs, appropriate solutions, and available resources differ widely.

A federal program should also be available to both state and local governments. The division of spending and taxing responsibility among levels of government differs widely among states; some state governments do what local governments do in

other states. Optimally, a federal program would not intervene in this division.

Accountability

Successful state programs provide accountability among both branches and levels of government. A state RLF has to balance executive discretion with legislative oversight, and state control with local participation and responsibility.

While some state legislatures approve each local project selected for RLF funding, the Congress generally cannot exercise such detailed oversight. A federal RLF program could provide for accountability and improve state and local decision-making capability by delegating project selection to the states, within certain broad guidelines.

Assuring adequate accountability can sometimes conflict with increasing and stabilizing public works funding. Stabilizing funding can require segregating funds from other budget priorities by earmarking revenues or creating special authorities to issue revenue bonds. Whether at the state or the federal level, both devices can reduce legislative control and oversight over program spending.

Affordability

Successful state programs are small enough to be manageable given available resources but large enough to make a difference. The National Council on Public Works Improvement concluded that the nation may need to double its annual investment in public

works, but suggested that such an increase could take until the end of this century to realize.[45] A large increase in spending realized rapidly can be dissipated in increased administrative costs and resource prices. The same increase realized over a longer period of time can promote solid improvement.

The four study states were concerned not only with how much to spend but also with how do to it. A program that affects the budget indirectly may be no less expensive, in the long term, than one whose costs are fully recognized and accounted for when they are incurred. The study states generally recognized this and approached innovative financing techniques and independent authorities with caution.

In summary, multi-purpose state revolving loan funds for local public works have allowed some states to implement spending programs that might not have been possible otherwise. At the same time, capital spending can increase without financial innovation.

A federal loan program for state and local public works facilities would be a significant departure from past policy, since federal aid to state and local governments has not historically included loans. For a federal program to take advantage of what state and local governments have learned could require even larger changes.

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45 Fragile Foundations, pp. 2-3.